

Patent claims

1. A method for transmitting data over a radio interface between a base station (BS) and subscriber stations (MS) in a radio communication system, in which
- 5 - channels (DCH, DSCH, FACH) in a broadband frequency band are distinguished using individual spread codes, with at least one common channel (DSCH) being allocated to a plurality of
- 10 connections (V1, V2) existing in parallel for use at successive times,
- a subsequently valid allocation of the common channel (DSCH) for a connection (V1) is signaled in-band in at least one channel (DCH, DSCH) of the
- 15 data transmission using a data rate (GR) allocated to the connection (V1),
- a relationship between the allocated data rate (GR) and common channels (DSCH) which are to be used is agreed in a separate signaling channel
- 20 (FACH), and
- the data (data) are transmitted in the channels (DCH, DSCH) for data transmission on the basis of the allocation.
- 25 2. The method as claimed in claim 1, in which, within a connection (V1) between the base station (BS) and the subscriber station (MS), a combination of data for a plurality of services (S) is transmitted within one or more channels (DCH, DSCH), with the current
- 30 combination, the data rate (GR) and the allocation of common channels (DSCH) being signaled using TFCI values.
3. The method as claimed in claim 1 or 2, in which

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the data transmission takes place in the downlink direction from the base station (BS) to the subscriber stations (MS).

- 5 4. The method as claimed in one of the preceding claims, in which
- the largest possible number of channels are allocated as common channels (DSCH), with at least one channel (DCH) per connection (V1, V2) being allocated
- 10 exclusively.

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5. The method as claimed in claim 4, in which common channels (DSCH) are preferably allocated for connections (V1) having a high maximum data rate.

5 6. The method as claimed in claim 4 or 5, in which common channels (DSCH) are preferably allocated for connections (V1) having high data rate dynamics.

7. The method as claimed in one of the preceding  
10 claims, in which,  
for a subset of the data rates (GR), the in-band signaling can be used to select a plurality of combinations of channels (DCH, DSCH) for a connection (V1).

15 8. The method as claimed in one of the preceding claims, in which  
a relationship between allocated data rate (GR) and common channels (DSCH) to be used is agreed upon  
20 connection setup.

9. The method as claimed in one of the preceding claims, in which  
a partial information item (TFICI) is used to signal in-  
25 band the individual data rates for the services (S) within a connection and the use of one or more channels (DCH, DSCH).

10. A radio communication system for transmitting data  
30 over a radio interface between a base station (BS) and subscriber stations (MS),

- where the radio interface is formed in a broadband frequency band by channels (DCH, DSCH, FACH) which can be distinguished using individual spread  
35 codes, and at least one common channel (DSCH) can

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